

Notice of Allowability

Application No.

10/773,060

Examiner

Marianne L. Padgett

Applicant(s)

YIM ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/21/2005 & TD of 10/26/2005.
2. ☒ The allowed claim(s) is/are 9-16, 19 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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The following is an examiner's statement of reasons for allowance: applicant has amended their claims to more narrowly defined the three reagents required in the process for depositing the dielectric film, such that alpha-terpinene or the class of compounds to which it belongs as illustrated by the formula in claim 11, is required in the process. While claims containing this limitation were previously rejected with Wakizaka et al. to suggest the obviousness of its use, applicants' arguments on page 6 of the 11/21/2005 response raise a reasonable point as to whether these compounds would be functionally equivalent to the compounds, such as cyclohexane or norbornadiene, suggested in the primary reference to Grill et al. While the secondary record shows a reasonable degree of equivalents within its polymerization process, this solution based process for polymerization, as pointed out by applicants cannot be said to provide functional equivalents in the CVD process of Grill et al., whose hydrocarbon compounds are for creating a second phase in a host phase formed by organosilicons.

It is further noted that the patent to Vrtis et al (6,846,515 B2), while teaching alpha-terpinenes and similar porogens, as pore formers deposited with organosiloxanes or organosilanes containing oxygen, where no oxidants are employed in the CVD process, is using these claimed hydrocarbons in a different manner and with different CVD chemical reagents than is Grill et al., whose hydrocarbons form a second phase in the multiphase material and are not pore formers. Other art of interest where alpha-terpinene is used as a pore former is Johnson et al. (2005/0161060 A1), which is not prior art due to applicants' disclosure of alpha-terpinene in the parent case.

Copending cases to the same assignee as applicant that are relevant due to claims involving alpha-terpinene include those corresponding to published applications of Schmitt et al. (2005/0230834 A1 & 2005/0227502 A1) and Zheng et al. (2005/0153073 A1), but these are much later filed and not yet examined applications, hence do not require any obviousness double patenting rejections as this case is going to allowance.

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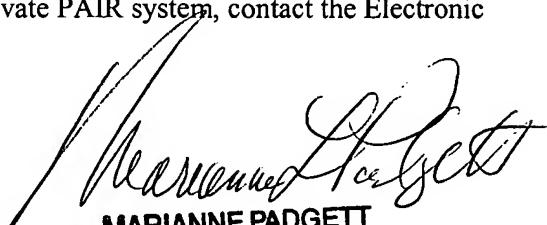
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP 11/28/2005



MARIANNE PADGETT
PRIMARY EXAMINER